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$6^h\ 30^m$ the star was some two or three diameters of the planet distant. By the time occultation approached the air was very clear, but definition had gone to pieces, and Jupiter's limb was boiling badly.

At $14^h\ 20^m$ the star had become exceedingly faint and could scarcely be held steadily, owing to the planet's glare and the atmospheric tremors.

At $14^h\ 21^m\ 15^s$ it was last seen with certainty, when it was separated from the limb by a distance equal to about half that between the S. edge of the S. Equatorial Belt and the S. Temperate Belt.

I thought I glimpsed the star again at $14^h\ 22^m\ 30^s$, but this was very uncertain. I considered the probable time of occultation $14^h\ 27^m \pm$, and the point of disappearance the S. Tropical Zone, and near the N. edge of the S. Temperate Belt.

Somewhat curiously, unless my memory is at fault, this is the first time I have observed the occultation of a star by a planet.

Note on the appearance of Saturn's Rings, 1908 *October*.

(*Communicated by the Astronomer Royal.*)

In consequence of an announcement from Geneva Observatory received on October 10, that a new dusky ring had been discovered outside the white rings of Saturn, the ring system has been examined with the 28-inch refractor. The following are the observational notes.

October 10.—Mr. Bowyer observed from $10^h\ 30^m$ to $11^h\ 50^m$ G.M.T. with powers 450 and 550. Definition fairly good; bright moonlight. The ring, all round, appeared to be dusky on the outer edge. This duskiness was also noticeable on the following limb of the planet.

Mr. Lewis observed from $11^h\ 45^m$ to $11^h\ 55^m$ G.M.T. The crape ring was then very plain, and Cassini's division well marked. Enceladus and Tethys were very distinct, close to the rings. He remarks: "Two features seem different from what I remember of Saturn in 1895.

"1. The north preceding edge of the outer ring had a hazy border.

"2. The north following edge is fairly sharp and dark,—the impression being that it is the thickness of the ring one is looking at.

"The south edge, preceding and following, is quite normal. The varying effects may possibly be due to the bright moonlight.

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Two white dots on the rings near the position of Encke's division, one on each ansa, are very bright."

October 11.—Mr. Lewis observed from 10^h 10^m to 11^h 20^m G.M.T. At 10^h 10^m G.M.T., with a power of 550, three satellites, Rhea, Dione, and Tethys, were seen very distinctly near the rings. There was no sign of the appearances seen on October 10.

At 10^h 55^m G.M.T. the white spot on the preceding ansa became visible.

At 11^h 16^m G.M.T., while watching Tethys approach the following limb of Saturn, north of the rings, the edge of the ring just above the satellite appeared indented, while a faint fringe extended hence to the end of the ansa.

At 11^h 20^m G.M.T. this fringe was seen both preceding and following. Mr. Bowyer observed from 11^h 10^m to 11^h 35^m G.M.T. The duskiness on the limb of planet, noticed on October 10, was not apparent. The bright patch near the position of Encke's division was visible on the preceding ansa. At 11^h 15^m G.M.T. the north following edge had a different appearance from the south edge; there was a trace of a faint, fuzzy ring.

At 11^h 25^m the faint, fuzzy ring was suspected on the north preceding edge; the appearance of the rings did not change up to 11^h 35^m G.M.T.

October 12.—Mr. Lewis observed from 10^h 20^m to 10^h 30^m. The white marks on the rings were not visible. Enceladus and Tethys were seen near the rings. A fringe to the north preceding edge of the outer bright ring was suspected.

Mr. Bowyer observed from 10^h 40^m to 10^h 50^m G.M.T. The crape ring was well seen; the white patch was more noticeable on the preceding than on the following side.

At 10^h 38^m the north edge of outer ring was bordered by a faint, dusky ring, which was seen again at 10^h 50^m.

October 15.—Mr. Bowyer observed from 10^h 10^m to 11^h 15^m G.M.T. The crape ring, Cassini's division, and the white patches were seen. The preceding and following edges of the outer ring on the north side seemed sharper than on October 12, and in the short spells of good definition it appeared bordered by an outer dusky ring. At 11^h 10^m, with a power of 670, the outer bright ring had a dullish edge on the north side, while on the south side it was bright. At moments of good definition the north edge was bordered by a dusky ring, fairly well outlined.

Mr. Eddington observed from 10^h 45^m to 11^h 10^m G.M.T., power 670. "At the moments of good definition there appeared to be a narrow dusky ring surrounding the bright ring, visible on the N. edge. I could not detect it on the S. edge, nor where it crossed the disk of the planet. The north and south edges differ in colour (owing to atmospheric dispersion), and this renders a comparison of their appearances somewhat uncertain."

The observations on the following evenings were made by Mr. Bowyer.

October 22.—From 10^h 15^m to 11^h 20^m G.M.T. At 10^h 45^m

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the definition improved so that the white patches could be seen on the rings: with a power of 550 in favourable seeing, there appeared traces of an outer dusky ring on the north preceding and following edge of the white ring.

At $11^h\ 10^m$ the difference in the appearance of the north and south edges was most marked.

October 27.—From $9^h\ 40^m$ to $10^h\ 45^m$ G.M.T. While making micrometer measures of the system, the definition was occasionally very fair, and the outline of an outer dusky ring could be seen on the north preceding and following edge of the white ring.

October 30.—From $9^h\ 30^m$ to $10^h\ 45^m$ G.M.T. Under similar circumstances and definition, the two bright patches were seen, and an outer dusky ring was seen bordering the north preceding and following edge of the outer bright ring.

October 11.—On this evening two interesting observations were made by Mr. Lewis. Incidentally, they show the correctness of the adjustment to focus. The two satellites Dione and Rhea were very close together near the south following edge of ring. The position angle and distance were measured.

			h m s	
Angle of position, Dione to Rhea,	356°·1	at	0 22 48	Greenwich sid. time
Distance from Dione to Rhea,	2″·18	at	0 23 13	,, ,,

A transit of Tethys was also observed.

	h m s	
First contact of Tethys and Saturn,	0 49 24	Greenwich sid. time
Last contact of Tethys and Saturn,	0 52 1	,, ,,

Royal Observatory, Greenwich:
1908 *November* 9.

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Observations of Minor Planets, from photographs taken with the 30-in. Reflector of the Thompson Equatorial at the Royal Observatory, Greenwich, during the year 1907.

(*Communicated by the Astronomer Royal.*)

The following positions of minor planets were obtained from photographs taken with the 30-in. reflector during the year 1907.

The plates were measured with the astrographic micrometer. Six reference stars were, as a rule, measured with the planet, their positions being derived, when possible, from the Catalogues of the Astronomische Gesellschaft, or from the Radcliffe Catalogue 1890.

The positions given are not corrected for Parallax.

Log Parallax Correction = log Parallax Factor − log Δ.

Date and G.M.T. 1907. d	h m s	Apparent R.A. h m s	Apparent Dec. ° ′ ″	Log. Parallax Factor. R.A.	Dec.
		(8) Flora.			
Jan. 30	9 7 10	7 18 44·22	+23 36 22·6	−9·211	+0·631
Feb. 1	11 16 26	7 16 59·00	23 46 15·2	+8·873	0·612
		(402) Chloë.			
Feb. 1	11 29 52	8 47 41·17	+18 18 36·1	−8·756	+0·681
21	12 0 44	8 31 35·86	21 27 3·6	+9·187	0·656
Mar. 1	11 45 41	8 27 33·68	22 25 2·1	+9·270	0·652
		(511) Davida.			
Feb. 1	11 45 33	10 5 8·63	+25 24 20·7	−9·212	+0·608
21	11 39 55	9 49 24·84	28 15 19·5	−8·037	0·536
Mar. 1	11 55 46	9 43 24·31	29 3 7·1	+8·931	0·529
		(11) Parthenope.			
Mar. 20	10 41 30	10 41 6·06	+13 17 5·4	−8·215	+0·733
21	11 32 8	10 40 18·23	13 22 19·0	+8·866	0·734
22	10 41 52	10 39 34·84	13 27 2·4	−7·517	0·732
23	10 43 11	10 38 50·83	13 31 44·1	+7·915	0·731
		(79) Eurynome.			
Mar. 20	11 0 29	11 24 14·25	−0 21 16·2	−8·733	+0·838
21	11 43 28	11 23 21·17	0 13 42·7	+8·317	0·837
22	10 59 11	11 22 31·87	−0 6 37·7	−8·618	0·837
23	10 57 6	11 21 41·66	+0 0 37·1	−8·583	0·836